Georgia Department of Transportation

Interoffice Memo
Office of Design Policy & Support

DATE: **10/15/2018**

FILE: P.I.# 0013990
Dawson County / GDOT District 1 - Gainesville
SR 136 @ Toto Creek 7.6 Miles Southeast of Dawsonville

FROM: for Brent Story, State Design Policy Engineer

TO: SEE DISTRIBUTION

SUBJECT: **APPROVED CONCEPT REPORT**

Attached is the approved Concept Report for the above subject project.

Attachment

Distribution:
Hiral Patel, Director of Engineering
Joe Carpenter, Director of P3
Albert Shelby, Director of Program Delivery
Darryl VanMeter, Assistant Director of P3/State Innovative Delivery Administrator
Kim Nesbitt, Program Delivery Administrator
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Bill DuVall, State Bridge Engineer
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Angela Robinson, Financial Management Administrator
Erik Rohde, State Project Review Engineer
Monica Flournoy, State Materials Engineer
Patrick Allen, State Utilities Engineer
Eric Conklin, State Transportation Data Administrator
Attn: Systems & Classification Branch
Benny Walden, Statewide Location Bureau Chief
Brent Cook, District Engineer
Brandon Kirby, District Preconstruction Engineer
Robby Oliver, District Utilities Manager
Darrell Richardson, Project Manager
BOARD MEMBER - 9th Congressional District

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

LIMITED SCOPE PROJECT CONCEPT REPORT

Project Type: Bridge Replacement
GDOT District: 1
Federal Route Number: N/A
Project Number: N/A
P.I. Number: 0013990
County: Dawson
State Route Number: 136

The project consists of the replacement of the SR 136 bridge over Toto Creek (Lake Lanier) near Dawsonville, GA. The existing bridge will be closed, and the proposed bridge will be reconstructed in the current location. The roadway approaches will be reconstructed to tie into the existing road on both sides of the proposed bridge. A local detour will be provided during construction.

** Report updated on 9-19-2018 & on 9-24-2018 to address review comments

Submitted for approval:

Chad Havens, P.E., Michael Baker International — Date: 8/3/2018

Kimberly W. Nesbitt — State Program Delivery Administrator — Date: 8/14/18

GDOT Project Manager (SHP) — Date: 8-8-18

* Recommendations on file

Recommendation for approval:

*Eric Duff/KLP
State Environmental Administrator — Date

*Christopher Raymond/KLP
For State Traffic Engineer — Date

*Bill DuVall/KLP
State Bridge Engineer — Date

*Brandon Kirby/KLP
For District Engineer — Date

☐ MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).

☒ Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

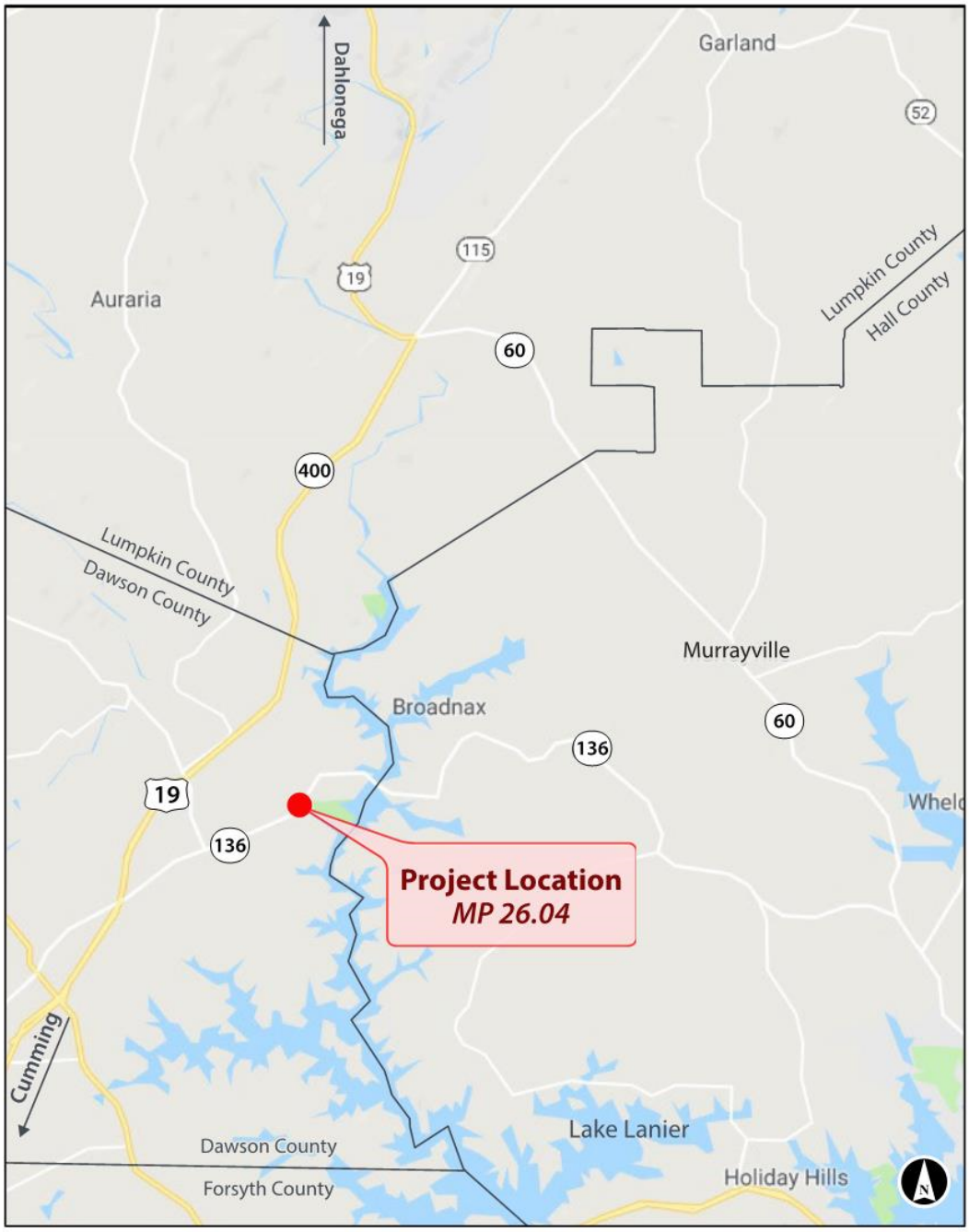
R. Paul Jarmer
State Transportation Planning Administrator — Date: 8-27-18

Approval:

Concur: Hal Pitts
GDOT Director of Engineering — Date: 10-10-18

Approve: Margaret B. Pickell
GDOT Chief Engineer — Date: 10/15/18

PROJECT LOCATION MAP



PROJECT LOCATION MAP
SR 136 at Toto Creek (Lake Lanier)
Bridge Replacement, Dawson County

Michael Baker INTERNATIONAL
Georgia Department of Transportation

PLANNING & BACKGROUND DATA

Project Justification Statement:
The bridge on SR 136 over Toto Creek, Structure ID 085-0019-0, was built in 1956. This bridge consists of six (6) spans of continuous steel beams on concrete caps with steel piles. A structural analysis shows a lower than expected carrying capacity in the substructure of this bridge. This bridge was designed using an HS-20 vehicle, which is below current design standards. The overall condition of this bridge would be classified as fair. The deck is in fair condition with heavy abrasion, exposed aggregate, and transverse cracking in all spans. The superstructure is in fair condition with moderate corrosion with section loss in the steel beams and diaphragms. The substructure is in fair condition with minor cracking in the concrete caps and moderate corrosion with section loss in the steel piles. This bridge is classified as having an unknown foundation and therefore could be at risk for scour. Due to the age of the structure, the structural analysis of the bridge, and unknown foundation of the substructure, replacement of this 61-year-old bridge is recommended.

(Office of Program Delivery)

Existing conditions:
Existing SR 136 (Price Road) consists of two 10-foot lanes with 2-foot paved shoulders. The existing bridge over Toto Creek consists of two 10-foot lanes with 1-foot shoulders. There is an unsignalized intersection of SR 136, Henry Grady Highway and Toto Creek Park Road north of the existing bridge. There is no sidewalk or bicycle lanes on the existing bridge or along SR 136, Henry Grady Highway and Toto Creek Park Road. Toto Creek Park, owned and operated by the US Army Corp of Engineers, is located northeast of the existing bridge with SR 136 and Toto Creek Park Road forming the park boundaries. Overhead electric lines are located on the west side of the road running parallel with the existing bridge. There is an existing gas line attached to the right side of the bridge and telephone line attached to the left side of the bridge.

Other projects in the area:
PI# 0007170 SR 136 over Chestatee River – 1 mile E of project location

MPO: N/A - not in an MPO **TIP #:** N/A

Congressional District(s): 9

Federal Oversight: ☐PoDI ☒Exempt ☐State Funded ☐Other

Projected Traffic: AADT 24 HR T: 5%
Current Year (2018): 4,850 Open Year (2024): 5,300 Design Year (2044): 7,100
Traffic Projections Performed by: Michael Baker International
Date approved by the GDOT Office of Planning: August 1, 2018

Functional Classification (Mainline): Rural Minor Arterial

Complete Streets - Bicycle, Pedestrian, and/or Transit Standards Warrants:
Warrants met: ☒None ☐Bicycle ☐Pedestrian ☐Transit

Pavement Evaluation and Recommendations

Initial Pavement Evaluation Summary Report Required?	☐No	☒Yes
Initial Pavement Type Selection Report Required?	☒No	☐Yes
Feasible Pavement Alternatives: ☒HMA	☐PCC	☐HMA & PCC

DESIGN AND STRUCTURAL

Description of Proposed Project: The project consists of the replacement of the SR 136 bridge over Toto Creek (Lake Lanier) near Dawsonville, GA. The existing bridge will be closed, and the proposed bridge will be reconstructed in the current location. The new bridge will include two 12-foot lanes and an 8-foot shoulder on each side. The roadway approaches will be reconstructed to tie into the existing road on both sides of the proposed bridge. The proposed roadway will include two 12-foot lanes and a 10-foot overall shoulder with 4-foot paved on each side. A local detour will be provided with all nearby roads remaining open during construction. The total project length is 0.1 miles.

Accelerated Bridge Construction (ABC) techniques anticipated: ☒ No ☐ Yes
ABC techniques are not recommended for this project because the road will be closed during construction, construction equipment access is limited due to the relatively deep creek, and the increased construction costs.

Major Structures:

Structure ID	Existing	Proposed
085-0019-0	272-foot long, 26.8-foot wide deck with two 11-foot lanes and no shoulders. ~~Sufficiency rating of 49.2~~ per inspection dated 11/1/2017. KLP	285-foot long bridge with three (3) 95-foot spans. Total width is 43.25-foot including two 12-foot travel lanes and 8-foot outside shoulders.

Mainline Design Features: *SR 136/Price Road*

Feature	Existing	Policy	Proposed
Typical Section			
- Number of Lanes	2		2
- **Lane Width(s)**	**10-ft**	**11-12-ft**	**12-ft**
- **Median Width & Type**	**None**	**None**	**None**
- **Outside Shoulder Width**	**6-ft total 2-ft paved**	**10-ft total 4-ft paved**	**10-ft total 4-ft paved**
- **Outside Shoulder Slope**	**Varies**	**6.00%**	**6.00%**
- **Inside Shoulder Width**	**None**	**None**	**None**
- **Sidewalks**	**None**	**None**	**None**
- Auxiliary Lanes	None		None
- **Bike Accommodations**	**None**	**None**	**None**
Posted Speed	55 MPH		55 MPH
Design Speed	**45 MPH (Horiz) 40 MPH (Vert)**	**55 MPH**	**55 MPH****
Minimum Horizontal Curve Radius	**560-ft**	**1060-ft**	**2617-ft**
Maximum Superelevation Rate	**Unknown**	**6%**	**N/A**
Maximum Grade	**7%**	**5%**	**5%**
Access Control	**Permit**	**Permit**	**Permit**
Design Vehicle	HS-20		SU
Pavement Type	Asphalt		Asphalt

*According to current GDOT design policy if applicable
**Considers the bridge replacement section only; not the existing substandard curves

Is the project located on a NHS roadway? ☒ No ☐ Yes

Design Exceptions/Design Variances to GDOT and/or FHWA Controlling Criteria anticipated: None

Design Variances to GDOT Standard Criteria anticipated: None

Lighting required: ☒ No ☐ Yes

Off-site Detours Anticipated: ☐ No ☐ Undetermined ☒ Yes

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes
If Yes: Project classified as: ☒ Non-Significant
TMP Components Anticipated: ☒ TTC

INTERCHANGES AND INTERSECTIONS

Major Interchanges/Intersections:
SR 136 @ Henry Grady Highway/Toto Creek Park Road – Existing unsignalized intersection (outside of project limits)

Intersection Control Evaluation (ICE) Required: ☒ No ☐ Yes

Roundabout Peer Review Required: ☒ No ☐ Yes ☐ Completed – Date:

UTILITY AND PROPERTY

Railroad Involvement: None

Utility Involvements:
Sawnee EMC – Electric (alternate 1 only)
Southern Company Gas (AGL) – Gas (preferred & alternate 1)
Etowah Water and Sewer – Water and Sewer (alternate 1 only)
Windstream - Telecommunications (preferred & alternate 1)

SUE Required: ☒ No ☐Yes

Public Interest Determination Policy and Procedure recommended? ☒ No ☐ Yes

Right-of-Way: Existing width: 100-185 ft. Proposed width: 100-185 ft.
Required Right-of-Way anticipated: ☒ None ☐ Yes ☐ Undetermined
Easements anticipated: ☒ None ☐ Temporary ☐ Permanent ☐ Utility ☐ Other

Anticipated total number of impacted parcels: 0
Displacements anticipated: Businesses: 0
Residences: 0
Other: 0
Total Displacements: 0

Impacts to USACE property anticipated? ☐ No ☒ Yes ☐ Undetermined

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: None

Context Sensitive Solutions Proposed: None

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document:

NEPA:	☐ PCE	☒ CE	☐ EA-FONSI
GEPA:	☐ Type A	☐ Type B	☒ None

Level of Environmental Analysis:

☒ The environmental considerations noted below are based on preliminary desktop or screening level environmental analysis and are subject to revision after the completion of resource identification, delineation, and agency concurrence.

☐ The environmental considerations noted below are based on the completion of resource identification, delineation, and agency concurrence.

Water Quality Requirements:

MS4 Compliance – Is the project located in an MS4 area? ☒ No ☐ Yes

Is Non-MS4 water quality mitigation anticipated? ☒ No ☐ Yes

Environmental Permits, Variances, Commitments, and Coordination anticipated:

- A CWA Sec. 404 Regional Permit will be required.
- A buffer variance is not anticipated to be required; assumes limits of disturbance will not extend beyond the 100-foot bridge exemption box.
- ESA Sec. 7 informal consultation is anticipated to be required to address potential impacts to bat habitat; Special Provision 107.23H would be included in the construction contract.
- Coordination with GDNR-HPD/GASHPO under Section 106 of National Historic Preservation Act is anticipated to be required to address impacts to the NRHP-eligible bridge.
- Coordination with FHWA and USACE anticipated under Section 4(f) of DOT Act to address impacts to Toto Creek Park.

Air Quality:

Is the project located in an Ozone Non-attainment area?	☒ No	☐ Yes
Carbon Monoxide hotspot analysis required?	☒ No	☐ Yes

NEPA/GEPA Comments & Information:

Ecology – The proposed project is located in the Southern Outer Piedmont Level IV Ecoregion of Georgia, within the predicted range of two federally protected mammals (northern long-eared bat and Indiana bat). Due to the presence of potentially suitable summer roosting habitat within the project study area, surveys for these bats are required. Based on a preliminary evaluation, ESA Section 7 consultation with the USFWS will be required.

The USFWS early coordination response letter stated that the range of the federally protected amber darter, Cherokee darter, Etowah darter, and goldline darter includes Dawson County; however, these species do not occur in the Chattahoochee River Watershed and would not occur within the project study area. Therefore, an aquatic survey for these federally protected fish is not recommended. The response letter also stated that the predicted range of the candidate conservation species, Georgia aster, also includes Dawson County. The agency stated that there is a known occurrence of Georgia aster approximately 1.0 mile south of the project study area and a brief description of suitable habitat for this species was provided. The USFWS requested that surveys for this species be conducted during the flowering season (late September to early November) if suitable habitat is observed within the project study area. Field surveys of the project study area have confirmed potentially suitable habitat for Georgia aster; therefore, a species-specific survey will be conducted during the flowering period of this species (late-September through mid-November).

The GDNR-WRD early coordination response letter included records of known occurrences within 3 miles of the project study area for two federally protected species, Etowah darter and Cherokee darter, and six state-protected species: Etowah crayfish, Chattahoochee crayfish, bluestripe shiner, rock darter, Coosa chub, and Georgia aster. The range of the Etowah darter, Cherokee darter, Etowah crayfish, rock darter, and Coosa darter does not include the Chattahoochee River Watershed; therefore, aquatic surveys for these protected species are not required. The range of the Chattahoochee crayfish and bluestripe shiner includes the Chattahoochee River Watershed. However, the three perennial streams (not including Toto Creek) observed within the project study area are not free-flowing streams with a cobble substrate; therefore, these resources do not represent potentially suitable habitat for either the Chattahoochee crayfish or bluestripe shiner. As a result, aquatic surveys for these two state-protected species are not required.

Additional correspondence with GDNR-WRD stated that the nearest bald eagle nest to the project study area is located 8 miles south near Lake Lanier. Because the bald eagle is a state-protected species, as well as protected under the federal Migratory Bird Treaty Act (MBTA) and the federal Bald and Golden Eagle Protection Act, the letter requested that the agency be contacted if new nests or eagles are observed within the project study area. The agency also stated that there are no records of golden eagles near the project study area.

The USFWS and GDNR-WRD recommended that the ecological investigations include inspections of all bridges, culverts, and structures to determine if there is evidence of migratory bird species using the structure for nesting, and to determine if the structure is being utilized as a roost by bats. Therefore, surveys were conducted under the bridges and within large culverts located within the project corridor. Evidence of barn swallow nesting activity was observed underneath the existing bridge during the field investigation; therefore, Supplemental Specification 107.23G for the protection of bats and migratory birds would apply to this project. The GDNR-WRD also provided recommendations for best management practices during construction to protect water quality in the vicinity of the bridge crossing.

The field survey resulted in the identification of four stream resources and one open water (Toto Creek/Lake Lanier). Perennial Stream 1 and Intermittent Stream 2 are located in the southeast quadrant of the SR 136 crossing over Toto Creek. Perennial Stream 4 is located in the northeast quadrant of the bridge crossing, while Perennial Stream 5 is located in the northwest quadrant of the bridge crossing. Due to the nature of the proposed project (bridge replacement) complete avoidance of impacts to waters of the U.S. would not be possible. Therefore, a Section 404 permit issued by the USACE would be required. Compensatory mitigation in the form of the purchase of compensatory mitigation credits also may be required, depending upon the severity of any anticipated impacts to waters of the U.S.

Archaeology – Field survey has not been completed due to the need to acquire an Archaeological Resources Protection Act (ARPA) permit prior to conducting shovel tests on USACE-owned property. However, multiple previously identified sites are located within 1 mile of project area based on site file search.

History – Field survey revealed three (3) resources recommended not eligible for listing on the NRHP; one resource, GDOT Bridge No. 085-0019-0 determined eligible for listing on the NRHP; adverse effect to replace the bridge.

Air & Noise – A Type III Noise Assessment and an Air Assessment will be performed during Phase III of the project.

Public Involvement – A Public Information Open House is scheduled for March 29, 2019.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Is Federal Aviation Administration (FAA) coordination anticipated? ☒ No ☐ Yes

Project Meetings:
March 13, 2018 – Design team meeting with GDOT PM to discuss preferred concept and alternatives (meeting minutes attached).

April 25, 2018 – Meeting with USACE, GDOT and Consultant Team to discuss preferred concept and alternatives along with new USACE/GDOT coordination requirements (meeting minutes attached).

July 17, 2018 – Concept Team Meeting

Other coordination to date:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Michael Baker International
Design	Michael Baker International
Right-of-Way Acquisition	GDOT
Utility Coordination (Preconstruction)	GDOT
Utility Relocation (Construction)	Utility Companies
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, & Permits	Michael Baker International
Environmental Mitigation	GDOT
Construction Inspection & Materials Testing	GDOT

Project Cost Estimate and Funding Responsibilities:

	PE Activities					
	PE Funding	Section 404 Mitigation	ROW	Reimbursable Utilities	CST*	Total Cost
Funded By	GDOT	GDOT	GDOT	GDOT	GDOT	
$ Amount	$500,000	N/A	TBD**	$0	$3,609,803.71	$4,109,803.71
Date of Estimate	12/9/2016	N/A	TBD	5/21/2018	9/10/2018	

*CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

**ROW estimate requested on 3/21/2018, but no property impacts anticipated. ROW costs will be updated upon receipt of estimate from ROW Office.

ALTERNATIVES DISCUSSION

Preferred Alternative: Replace existing bridge in the current location			
Estimated Property Impacts:	0	**Estimated Total Cost:**	$4,109,803.71
Estimated ROW Cost:	TBD**	**Estimated CST Time:**	18 months
Rationale: This alternative was selected because it is the least impactful to the environment, USACE park property and residential properties and requires the shortest construction time. This alternative falls within the scope of a bridge replacement to replace the bridge without attempting to re-design SR 136 that would incur significant costs and impacts to the environment and local community. A local detour will be provided using Henry Grady Hwy and Toto Creek Park would remain accessible year-round.			

**ROW estimate requested on 3/21/2018, but no property impacts anticipated. ROW costs will be updated upon receipt of estimate from ROW Office.

Note: Detour Correspondence attached - KLP

No-Build Alternative: The existing bridge will be left in place with no improvements.			
Estimated Property Impacts:	0	**Estimated Total Cost:**	$0
Estimated ROW Cost:	$0	**Estimated CST Time:**	0
Rationale: This alternative would not meet the project justification as the structural integrity of the bridge is insufficient.			

Alternative 1: Proposed bridge to the east of existing bridge			
Estimated Property Impacts:	11	**Estimated Total Cost:**	$7,743,068.00
Estimated ROW Cost:	$250,000**	**Estimated CST Time:**	24 months
Rationale: This alternative was not selected because of the significantly increased impacts to the environment, USACE and residential property by building a parallel bridge to the east of the existing bridge. This alternative would require a temporary closing of Toto Creek Park Road which is the only paved access to Toto Creek Park. This alternative would cost significantly more than the Preferred Alternative in order to attempt to bring the road to current design standards, however, due to the existing conditions this alternative would still not meet the posted speed design. The additional impacts and costs required to keep the existing bridge open during construction were deemed too high when compared to the Preferred Alternative that would require a local detour. Cost includes Construction, Engineering and Inspection, Contingencies, Liquid AC Cost Adjustment, Preliminary Utilities and Preliminary Engineering.			

**ROW estimate requested on 3/21/2018 with significant ROW cost anticipated not shown above. ROW costs will be updated upon receipt of estimate from ROW Office.

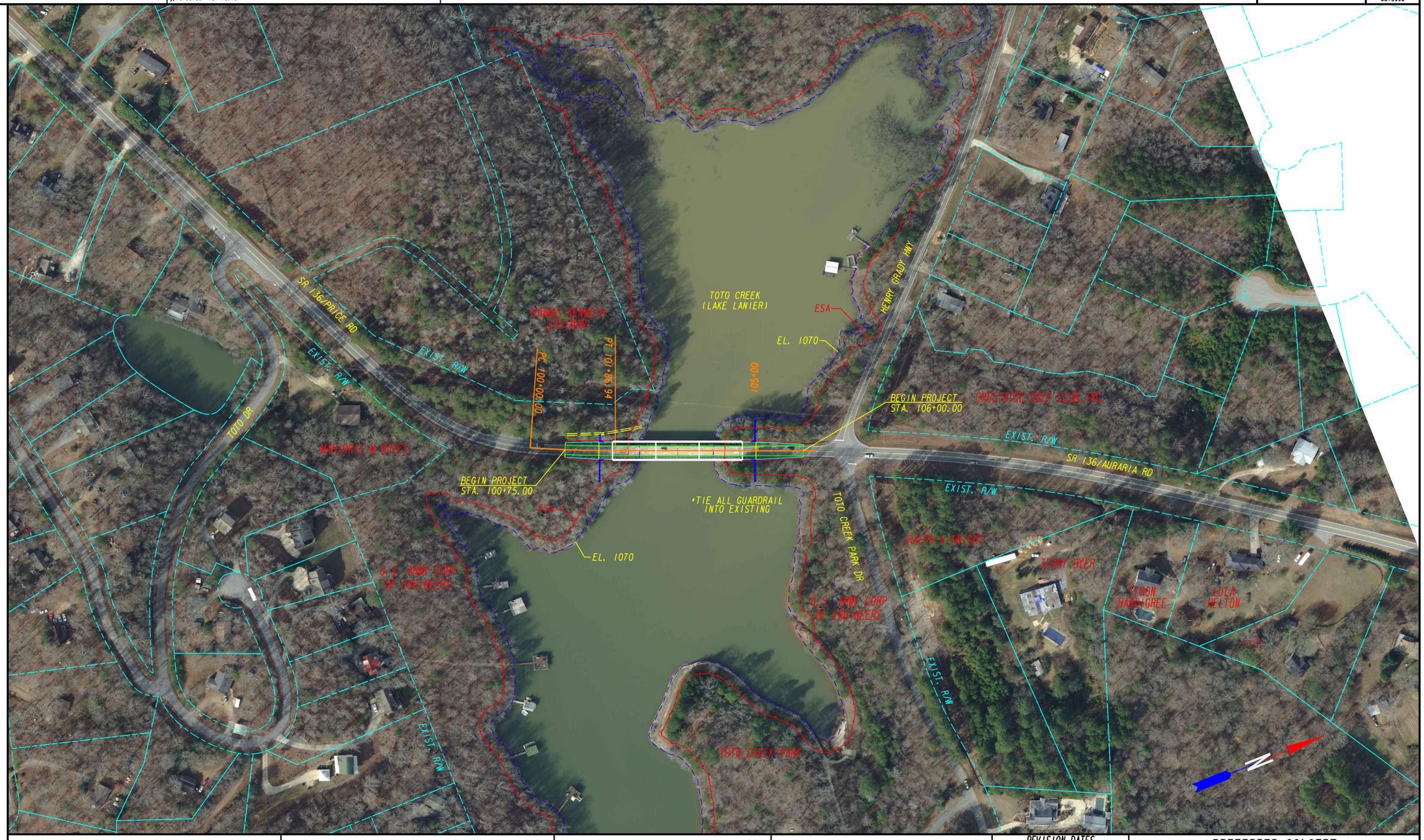
Additional Comments/ Information:

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Cost Estimates
4. Preliminary Utility Cost Estimate (Preferred Alternative and Alternative #1)
5. Concept Utility Report
6. Traffic Forecast
7. Detour Map
8. Meeting Minutes
9. Concept Team Meeting Minutes
10. MS4 Concept Report Summary
11. Bridge Inventory
12. Detour Correspondence

KLP

9/19/2018 8:40:00 AM Chad.Havens	GPLOT-V8 gplotborder-V81-P0.tbl	0013990 SR 136_Preferred Concept.dgn	GDOT P.I. No. 0013990



		Michael Baker INTERNATIONAL 420 TECHNOLOGY PARKWAY, STE. 150 NORCROSS, GEORGIA 30092 (770) 263-9118	SCALE IN FEET 0 100 200 400

REVISION DATES		

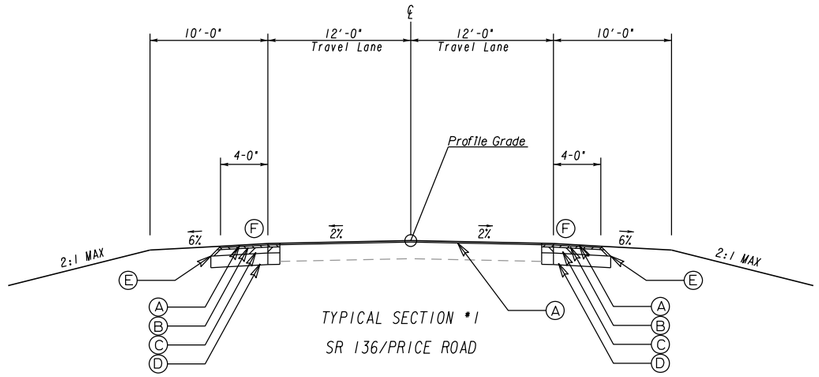
PREFERRED CONCEPT

SR 136 OVER TOTO CREEK

BRIDGE REPLACEMENT ONLY

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		

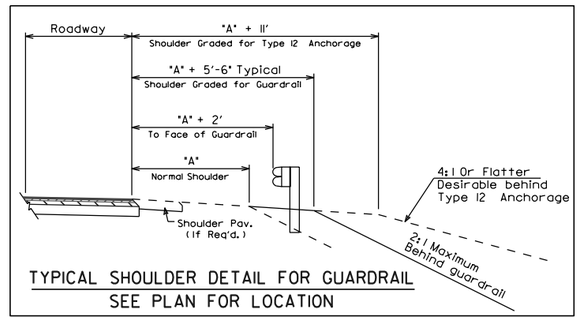
10/23/2015 GPLN



TYPICAL SECTION #1
SR 136/PRICE ROAD

CONCEPTUAL TYPICAL PAVEMENT SECTION

- (A) RECYCLED ASPH CONC 9.5 mm SUPERPAVE, TYPE II, GP 2 ONLY, INCL BITUM MATL & H LIME (165 LB/SY)
- (B) RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LB/SY)
- (C) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LB/SY)
- (D) GR AGGR BASE CRS, INCL MATL, 10
- (E) PAVEMENT EDGE TREATMENT ASPHALT AND CONCRETE PAVEMENT CONSTRUCTION DETAIL P-7
- (F) RUMBLE STRIPS (CONTINUOUS EDGE LINE)



TYPICAL SHOULDER DETAIL FOR GUARDRAIL
SEE PLAN FOR LOCATION

Michael Baker
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420 TECHNOLOGY PARKWAY, STE.150
NORCROSS, GEORGIA 30092
(770) 263-9118

NOT TO SCALE

REVISION DATES

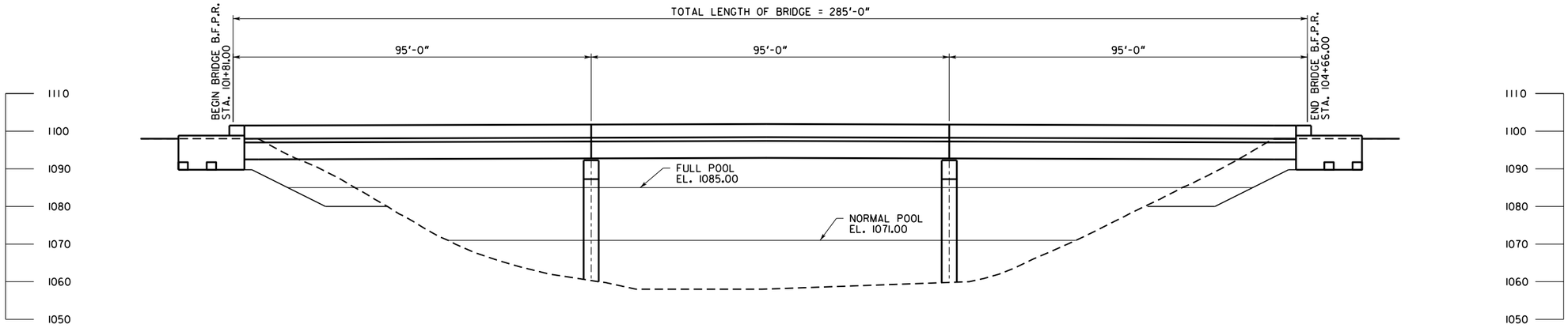
TYPICAL SECTIONS

SR 136 OVER TOTO CREEK

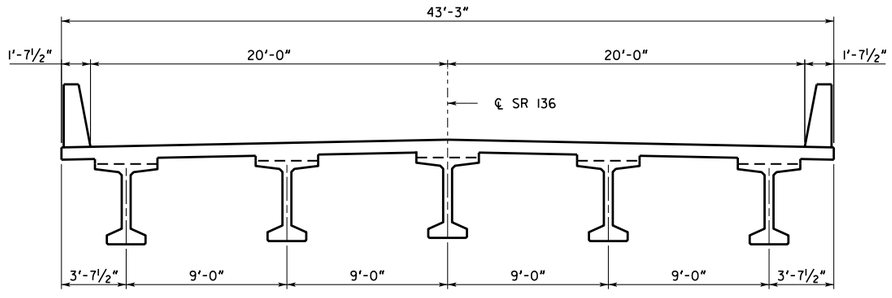
CONCEPT

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		05-0001
VERIFIED:		DATE:		

P.I. NO.
0013990



ELEVATION



TYPICAL SECTION

PREFERRED ALTERNATE NOTES:

1. BT 54" FOR ALL BEAMS.
2. ALL BEAMS ARE PARALLEL TO EACH OTHER.
3. ALL BENTS ARE 90°.
4. BEAMS SPACED AT 9'-0".

BRIDGE NO. 1

Michael Baker INTERNATIONAL
MICHAEL BAKER INTERNATIONAL
420 TECHNOLOGY PARKWAY, SUITE 150
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

CONCEPT DESIGN

SR 136 OVER TOTO CREEK

DAWSON COUNTY 0013990

SCALE: 1" - 15'-0" MAY 2018

DRAWING NO. 35-0001

BRIDGE SHEET 01 OF 01

DESIGNED	CHECKED	REVIEWED DLC/SKG
DRAWN	DESIGN GROUP DDF	APPROVED WMD

DATE / REVISIONS / BY

1 INCH WHEN PRINTED FULL SIZE

X.DGN

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. **0013990** **OFFICE** Program Delivery

PROJECT DESCRIPTION

The project consists of the replacement of the SR 136 bridge over Toto Creek (Lake Lanier) near Dawsonville, GA. The existing bridge will be closed, and the proposed bridge will be reconstructed in the current location.

DATE September 10, 2018

From:

To: Lisa L. Myers, State Project Review Engineer
via Email Mailbox: **CostEstimatesandUpdates@dot.ga.gov**

Subject: REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Darrell Richardson

MGMT LET DATE 3/15/2021

MGMT ROW DATE 3/15/2020

PROGRAMMED COSTS (TPro W/OUT INFLATION)			**LAST ESTIMATE UPDATE**	
CONSTRUCTION	**$**	3,200,000.00	DATE	12/9/2016
RIGHT OF WAY	**$**	250,000.00	DATE	12/9/2016
UTILITIES	**$**	0.00	DATE	12/9/2016

REVISED COST ESTIMATES

CONSTRUCTION*	**$**	3,609,803.71
RIGHT OF WAY	**$**	TBD
UTILITIES	**$**	0.00

*Cost Contains **15** % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

The project is in concept phase. A more refined cost estimate will be developed once plans are in the preliminary phase.

CONTINGENCY SUMMARY

A.	**CONSTRUCTION COST ESTIMATE:**	$ 2,987,253.74	Base Estimate From CES		
B.	**ENGINEERING AND INSPECTION (E & I):**	$ 149,362.69	Base Estimate (A) x	**5**	%
C.	**CONTINGENCY:**	$ 470,492.46	Base Estimate (A) + E & I (B) x	**15**	%
			See % Table in "Risk Based Cost Estimation" Memo		
D.	**TOTAL LIQUID AC ADJUSTMENT:**	$ 2,694.81	Total From Liquid AC Spreadsheet		
E.	**CONSTRUCTION TOTAL:**	$ **3,609,803.71**	(A + B + C + D = E)		

REIMBURSABLE UTILTY COSTS

UTILITY OWNER	REIMBURSABLE COST
Sawnee EMC	$ -
Southern Company Gas (AGL)	$ -
Etowah Water and Sewer	$ -
Windstream	$ -
	$ -
TOTAL	**$ -**

ATTACHMENTS: (File Copy in the Project Cost Estimate Folder)

Detailed Cost Estimate
Liquid AC Adjustment Spreadsheet
Consultant Validation of QC/QA

DATE : 09/10/2018
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0013990 SPEC YEAR: 13
DESCRIPTION: SR 136 OVER TOTO CREEK

ITEMS FOR JOB 0013990

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0013990	1.000	50000.00	50000.00
0010	153-1300		EA	FIELD ENGINEERS OFFICE TP 3	1.000	102569.60	102569.60
0014	208-0200		CY	ROCK EMBANKMENT	1000.000	66.98	66989.52
0015	210-0100		LS	GRADING COMPLETE - 0013990	1.000	500000.00	500000.00
0020	310-1101		TN	GR AGGR BASE CRS, INCL MATL	133.000	41.85	5566.08
0025	402-1812		TN	RECYL AC LEVELING,INC BM&HL	30.000	130.36	3911.05
0030	402-3103		TN	REC AC 9.5 MM SP,TPII,GP2, INCL BM & H	60.000	95.51	5730.81
0035	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	50.000	120.50	6025.48
0040	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	30.000	121.45	3643.74
0045	413-0750		GL	TACK COAT	40.000	3.00	120.00
0050	433-1000		SY	REINF CONC APPROACH SLAB	270.000	170.45	46023.78
0055	432-0206		SY	MILL ASPH CONC PVMT/ 1.50 DEP	460.000	10.01	4608.42
0059	456-2012		GLM	INTENT. RUMB. STRIPS - GRND-IN-PL (CONT)	1.000	1412.67	1412.67
0060	456-2025		GLM	INDNT, CNTR LN RUM STRP - GND-IN-PL(CON)	1.000	1569.37	1569.37
0065	632-0003		EA	CHANGEABLE MESS SIGN,PORT,TP 3	6.000	8553.45	51320.74
0070	641-1100		LF	GUARDRAIL, TP T	100.000	74.65	7465.52
0075	641-1200		LF	GUARDRAIL, TP W	400.000	21.60	8641.05
0080	643-8200		LF	BARRIER FENCE (ORANGE), 4 FT	1000.000	1.91	1911.60
0085	441-0301		EA	CONC SPILLWAY, TP 1	4.000	2167.66	8670.65
0090	576-1018		LF	SLOPE DRAIN PIPE, 18 IN	150.000	42.80	6420.87
0095	603-2024		SY	STN DUMPED RIP RAP, TP 1, 24	1600.000	55.17	88286.56
0100	603-2180		SY	STN DUMPED RIP RAP, TP 3, 12	30.000	39.76	1193.01
0105	603-7000		SY	PLASTIC FILTER FABRIC	1630.000	4.54	7403.30
0110	163-0232		AC	TEMPORARY GRASSING	1.000	618.79	618.80
0115	163-0240		TN	MULCH	21.000	315.92	6634.50
0120	163-0300		EA	CONSTRUCTION EXIT	3.000	1920.70	5762.10
0125	163-0527		EA	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG	5.000	417.47	2087.37
0130	163-0528		LF	CONSTR AND REM FAB CK DAM -TP C SLT FN	50.000	11.52	576.42
0135	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	5.000	193.03	965.19
0140	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	525.000	1.07	565.98
0145	165-0041		LF	MAINT OF CHECK DAMS - ALL TYPES	130.000	8.30	1079.86
0150	165-0050		LF	MAINT OF SILT RETENTION BARRIER	900.000	3.82	3441.11
0155	165-0101		EA	MAINT OF CONST EXIT	3.000	723.32	2169.97
0160	165-0105		EA	MAINT OF INLET SEDIMENT TRAP	5.000	69.92	349.62
0165	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	2.000	379.49	759.00
0170	167-1500		MO	WATER QUALITY INSPECTIONS	24.000	610.06	14641.53
0175	170-1000		LF	FLOAT SILT RETENTION BARRIER	900.000	13.11	11806.28
0180	171-0030		LF	TEMPORARY SILT FENCE, TYPE C	1050.000	4.04	4242.74
0185	700-6910		AC	PERMANENT GRASSING	2.000	1346.58	2693.17
0190	700-7000		TN	AGRICULTURAL LIME	6.000	131.92	791.57
0195	700-8000		TN	FERTILIZER MIXED GRADE	2.000	655.62	1311.25
0200	700-8100		LB	FERTILIZER NITROGEN CONTENT	100.000	4.27	427.56
0205	716-2000		SY	EROSION CONTROL MATS, SLOPES	2170.000	1.24	2706.38
0215	636-1033		SF	HWY SIGNS, TP1MAT,REFL SH TP 9	22.000	18.99	417.90
0220	636-1041		SF	HWY SIGNS,TP 2MAT,REFL SH TP 9	17.000	41.39	703.65
0225	636-2070		LF	GALV STEEL POSTS, TP 7	72.000	9.59	690.93
0230	653-1501		LF	THERMO SOLID TRAF ST 5 IN, WHI	300.000	1.11	333.97
0235	653-1502		LF	THERMO SOLID TRAF ST, 5 IN YEL	300.000	1.15	345.61

0240	654-1001	EA	RAISED PVMT MARKERS TP 1	50.000	6.41	320.64
0244	657-1085	LF	PRF PL SD PVT MKG,8,B/W,TP PB	700.000	8.30	5815.14
0245	657-6085	LF	PRF PL SD PVMT MKG,8,B/Y,TPPB	700.000	8.15	5711.68
0250	540-1101	LS	REM OF EX BR, STA NO - 0013990	1.000	327420.00	327420.00
0255	543-9000	LS	CONSTR OF BRIDGE COMPLETE - 0013990	1.000	1602380.00	1602380.00

ITEM TOTAL	2987253.74
INFLATED ITEM TOTAL	2987253.74

TOTALS FOR JOB 0013990

ESTIMATED COST:	2987253.74
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	2987253.74

PROJ. NO.		CALL NO.	0/00/2016
P.I. NO.	0013990		
DATE	9/10/2018		

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Sep-18	$ 2.693
DIESEL		$ 3.077
LIQUID AC		$ 553.00

Link to AC Index:
http://www.dot.ga.gov/PS/Materials/AsphaltFuelIndex

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				**2637.81**	**$ 2,637.81**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	884.80	
Monthly Asphalt Cement Price month project let (APL)			$	553.00	
Total Monthly Tonnage of asphalt cement (TMT)				7.95	

ASPHALT	Tons	%AC	AC ton
Leveling	30	5.0%	1.5
12.5 OGFC		5.0%	0
12.5 mm		5.0%	0
9.5 mm SP	60	5.0%	3
25 mm SP	50	5.0%	2.5
19 mm SP	19	5.0%	0.95
	159		**7.95**

BITUMINOUS TACK COAT

Price Adjustment (PA)			**$**	**57.00**	**$ 57.00**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	884.80	
Monthly Asphalt Cement Price month project let (APL)			$	553.00	
Total Monthly Tonnage of asphalt cement (TMT)				0.171804037	

Bitum Tack Gals	gals/ton	tons
40	232.8234	0.17180404

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$ -**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	884.80	
Monthly Asphalt Cement Price month project let (APL)			$	553.00	
Total Monthly Tonnage of asphalt cement (TMT)				0	

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT **$ 2,694.81**

Consultant Validation of Final QC/QA for Construction Cost Estimate Used in This Revision To Programmed Costs

COMPANY NAME:	Michael Baker International

VALIDATION OF FINAL QC/QA

PRINTED NAME:	Ben Clopper
TITLE:	Sr. Engineer
SIGNATURE:	Ben Clopper
DATE:	5/8/18

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE

Project No: **N/A** Office: **GAINESVILLE**
County **Dawson** Date: **May 21, 2018**
P.I.# **0013990**

Description: ***SR 136 at Toto Creek 7.6 mi SE of Dawsonville (Preferred Concept)***

FROM Robby Oliver, District Utilities Manager

TO Darrell Richardson, Project Manager

SUBJECT **PRELIMINARY UTILITY COST ESTIMATE**

A review of utilities located on the above referenced project has been conducted with Concept Layout plans. Listed below is a breakdown of the anticipated reimbursable and non-reimbursable cost.

Utility Owner	Reimbursable	Non-Reimbursable	Estimate Based on
Southern Company Gas (AGL)	$0.00	$72,000.00	Site Visit / Available Drawings
Windstream Telephone	$0.00	$43,600.00	Site Visit / Available Drawings
Total 100.00%	$0.00	$115,600.00	
Department Responsibility 100.00%	$0.00		
Local Sponsor Responsibility 0.00%	$0.00		PFA Dated N/A with N/A

** Indicates Potential Utility Aid Request from Local Gov't

Estimate is based on the best available information at the current stage, unforeseen prior rights information may be provided by the Utility Company at a later date that could cause some non-reimbursable costs to shift to the reimbursable cost column.

If additional information is needed, please contact Robby Oliver at 770-533-8320.

cc: Patrick Allen, State Utilities Administrator
Yulonda Pride-Foster, State Utilities Preconstruction Manager
Al Bowman, Designer
Brandon Kirby, District Preconstruction Engineer
Scott Frederick, Area Manager
File

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE

Project No: **n/a** Office: **GAINESVILLE**
County **Dawson** Date: **May 21, 2018**
P.I.# **0013990**

Description: ***SR 136 @ Toto Creek 7.6 mi SE of Dawsonville - Alt. 1 (Bridge East of Current Loc)***

FROM Robby Oliver, District Utilities Manager

TO Darrell Richardson, Project Manager

SUBJECT **PRELIMINARY UTILITY COST ESTIMATE**

A review of utilities located on the above referenced project has been conducted with Concept Layout plans. Listed below is a breakdown of the anticipated reimbursable and non-reimbursable cost.

Utility Owner	Reimbursable	Non-Reimbursable	Estimate Based on
Sawnee EMC	$70,000.00	$175,000.00	Site Visit / Available Drawings
Etowah Water **	$0.00	$172,550.00	Site Visit / Available Drawings
Southern Company Gas (AGL)	$0.00	$312,000.00	Site Visit / Available Drawings
Windstream Telephone	$0.00	$61,600.00	Site Visit / Available Drawings
Total 100.00%	$70,000.00	$721,150.00	
Department Responsibility 100.00%	$70,000.00		
Local Sponsor Responsibility 0.00%	$0.00		PFA Dated N/A with N/A

** Indicates Potential Utility Aid Request from Local Gov't

Estimate is based on the best available information at the current stage, unforeseen prior rights information may be provided by the Utility Company at a later date that could cause some non-reimbursable costs to shift to the reimbursable cost column.

If additional information is needed, please contact Robby Oliver at 770-533-8320.

cc: Patrick Allen, State Utilities Administrator
Yulonda Pride-Foster, State Utilities Preconstruction Manager
Al Bowman, Designer
Brandon Kirby, District Preconstruction Engineer
Scott Frederick, Area Manager
File

Original Version: May 24, 2013
Revision: Feb. April 5, 2018

Concept Utility Report

Project Number: N/A

District: One

County: Dawson

Prepared by: Doris Abernathy

P.I. # 0013990

Date: September 20, 2018

Project Description: SR 136 @ Toto Creek 7.6 miles SE of Dawsonville

The information provided herein has been gathered from Georgia811and/or field visits and serves as an estimate. Nothing contained in this report is to be used as a substitute for 1st Submission or SUE.

Are SUE services recommended? Choose an item.

Level: ☐A ☒B ☐C ☐D

Public Interest Determination (PID):

☐Automatic ☐Mandatory ☐Consideration ☒No Use ☐Exempt

Is a separate utility funding phase recommended? No

Potential Project (Schedule/Budget) Impacts: N/A

Capital Improvement Projects (Utilities) Anticipated in the Area: None anticipated.

Project Specific Recommendations for Avoidance/Mitigation: N/A

Right of Way Coordination: If permanent easements are negotiated include Utility Clause.

Environmental Coordination: N/A

Additional Remarks: Utility Concept Estimates were provided for Preferred Alternative and Alternative One. The Preferred Alternative was selected ad involved two Utility Owners. Alternative One (not selected) involved four Utility Owners. Page two reflects the two Utility Owners for the Preferred Alternative.

Original Version: May 24, 2013
Revision: Feb. March 8, 2018

Utilities have facilities within the project limits.

Utilities have been identified using Georgia811 and/or field visits.

Facility Owner	**Facility Owner Contact Email Address**	**Existing Facilities/ Appurtenances**	**General Description of Location**	**Facilities to Avoid** *approx. limits*	**Facilities Retention Recommended** *approx. limits*	**Comments**
Southern Company Gas (AGL)	John Matechak, jmatecha@southern co.com and Ginny Mauldin-Kinney, vmauldin@southernco.com	Steel natural gas line	Attached to right side of bridge	N/A	N/A	Click here to enter text.
Windstream	Steven Carter, Steven.Carter@windstream.com	Telecom	Attached to left side of bridge	N/A	N/A	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

Note: *To add additional rows, click the bottom right corner of the box above, then click the blue* + *that will appear. Please add additional rows prior to entering text.*

Department of Transportation
State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Dawson County
P.I. # 0013990

OFFICE Planning

DATE August 1, 2018

FROM Paul Tanner, State Transportation Planning Administrator

TO Kimberly Nesbitt, State Program Delivery Administrator
Attention: Darrell Richardson

SUBJECT **Design Traffic Forecasts** for SR 64 @ SATILLA RIVER 6 MI E OF PEARSON

Per request, we have reviewed the consultant's design traffic forecasts for the above project. Based on the information furnished, we find the design traffic forecasts to be satisfactory, and the design traffic forecasting task to be complete for the above project. The reviewed and approved design traffic diagrams for the above project is within the approved attached traffic forecasting methodology document. In addition, the reviewed and approved design traffic forecast for the above project is as follows:

BRIDGE ID # 085-0019-0

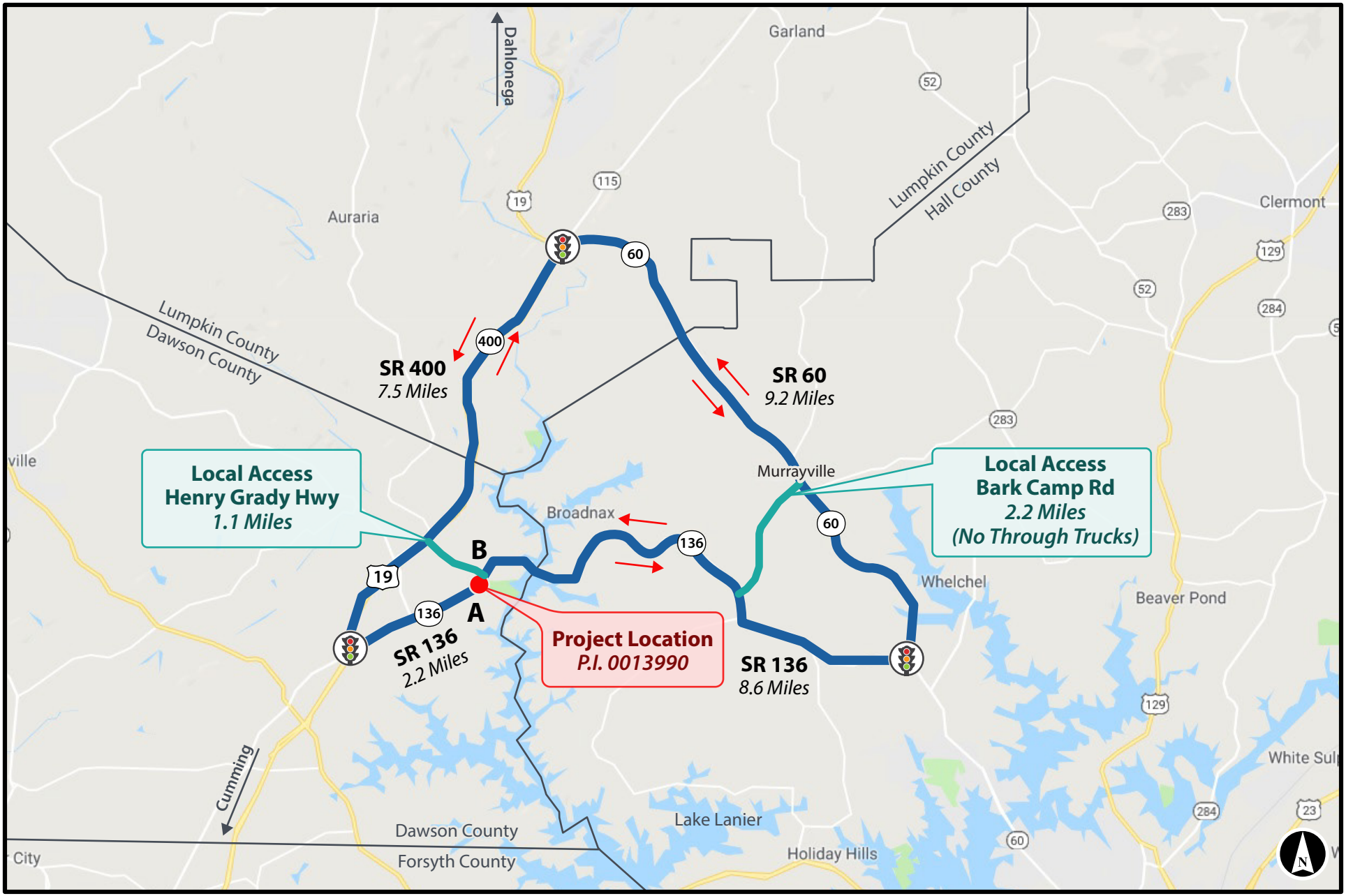
Build = No Build	2018 (Existing Year)	2024 (Base Year)	2026 (Base Year +2)	2044 (Design Year)	2046 (Design Year + 2)
AADT	4850	5300	5450	7100	7400
DHV (AM/PM)	385/ 480	420/ 520	430/ 535	565/ 700	590/ 735
K% (AM/PM)	8.0%/ 10.0%	Same as Existing Year			
D% (AM/PM)	66.0%/ 59.0%				
24 HR. T% - S.U.	4.5%				
24 HR. T% - COMB.	0.5%				
24 HR. T% - TOTAL	5.0%				
T% - S.U. (AM/PM)	2.5%/ 4.0%				
T% - COMB. (AM/PM)	0.5%/ 1.0%				
T% - TOTAL (AM/PM)	3.0%/ 5.0%				

If you have any questions concerning this information, please contact Andre Washington at 404-631-1925.

Andre Washington
Office Of Planning
5th Floor, One Georgia Center
404-631-1925

RPT/AMW

R:\163884\Documents\Concept Report\Detour



DETOUR MAP P.I. NO. 0013990

SR 136 at Toto Creek (Lake Lanier) Bridge Replacement, Dawson County

Proposed Detour Route Length (A to B) = 27.6 Miles

Michael Baker INTERNATIONAL

Georgia Department of Transportation

Michael Baker
INTERNATIONAL

I-985 at Elachee Road (PI #0013922)
SR 136 at Toto Creek (PI# 0013990)
I-85 at Ridgeway Church Road (PI# 0014076)

March 14, 2018

MEETING NOTES

Location

Michael Baker International
420 Technology Parkway Suite 150
Norcross, GA 30092

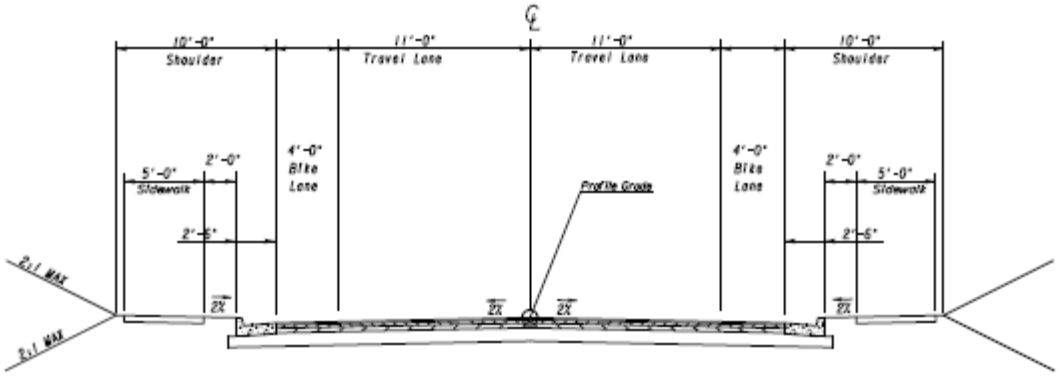
Attendees

Darrell Richardson	GDOT (PM)	drichardson@dot.ga.gov
Al Bowman	MBI	abowman@mbakerintl.com
Chad Havens	MBI	chad.havens@mbakerintl.com
George Manning	MBI	george.manning@mbakerintl.com
Mary Best	MBI	mdbest@mbakerintl.com
Brad Gowen	Holt Consulting	bgowen@holtconsultingco.com

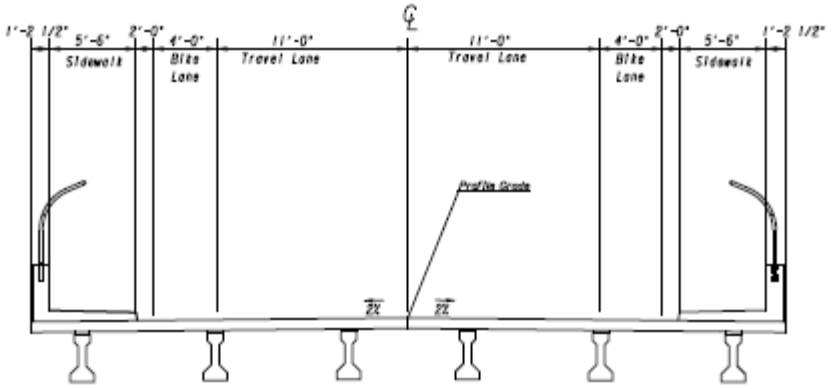
The purpose of the meeting was to discuss the different concept alternatives for each of the bridge replacement projects below:

I-985 at Elachee Road

- The Preferred Alternative is the one-lane configuration with a temporary signal and pedestrian access during construction.
- Alternative 1 is the one-lane configuration with a temporary signal and no pedestrian access during construction.
- Alternative 2 is the two-lane configuration with pedestrian access during construction.
- Use an 8-foot minimum between structures for staging purposes.
- The agreed to final typical section is as shown below:



ROADWAY TYPICAL SECTION



BRIDGE TYPICAL SECTION

SR 136 at Toto Creek

- SR 136 has two 10-11-ft lanes and is posted for 55 MPH, but the existing horizontal geometry design meets 40 MPH and the existing vertical geometry design meets 35 MPH. The existing bridge is approx. 270-ft, flat and has scuppers draining into the lake.
- ALT 1 would close the bridge and build it on the current alignment. It would bring the horizontal curve up to 55 MPH design speed, but the vertical alignment can only be corrected to meet 45 MPH. This would require significant grading and raising the profile at the intersection with Henry Grady Hwy and Toto Creek Park Drive approx. 10-ft. This would also require a detour around the bridge and the temporary closure of Henry Grady Hwy and the main entrance (nearby detour available) to Toto Creek Park Drive.
- According to the EMS response to the detour letter, closing the bridge on SR 136 and Henry Grady Hwy would have significant impacts to providing emergency services. If SR 136 is to be closed, Henry Grady Hwy must be open for the fastest, local detour.
- ALT 2 would build a parallel bridge off-alignment to the south of the existing bridge. The horizontal alignment could not be designed for 55 MPH without closing the existing bridge, therefore, the horizontal alignment would be design for 45 MPH. The vertical alignment would still only meet 45 MPH and would raise the intersection with Henry Grady Hwy and Toto Creek Park Drive approx. 10-ft, however Henry Grady Hwy would be able to remain open, while the main entrance (nearby detour available) to Toto Creek Park Drive would temporary close. The profile could be lower than the proposed if it met the existing speed design of 35 MPH, but the risk of designing a profile 20 MPH

below the posted speed limit was deemed too high.The project limits would be extended north on SR 136 due to the re-alignment as well as the side road limits of Henry Grady Hwy and Toto Creek Park Drive due to the raised profile. There would be significant ROW impacts as well.

- There is no alternative that can provide a 55 MPH vertical alignment without raising the vertical profile significantly higher than ALT 1 and 2.
- ALT 3 would close the bridge and build it on the current alignment without raising and improving the existing profile. The bridge would be replaced in approx. the same location and elevation and milling the limits of the existing pavement while also making shoulder and guardrail improvements to tie into the wider proposed bridge. This alternative would have no ROW impacts and would allow Henry Grady Hwy and Toto Creek Park Drive to remain open throughout construction.
- Building the proposed bridge off-alignment to the north side of the existing bridge was considered, but this would have significant impacts to the overhead distribution lines as well as closing Henry Grady Hwy. There was no advantage to building to the north side when compared to ALT 2 and building to the south side.
- ALT 1 was determined to be out of the scope of the project to fix the horizontal curve especially when considering this option would require a detour and would also close Henry Grady Hwy, which is against the local EMS request. This alternative will not be shown in the concept report.
- **ALT 3 will become the Preferred Alternative for the concept report** because it's within the scope of a bridge replacement. Though it would require a detour, Henry Grady Hwy and Toto Creek Park Drive would remain open. This would be the least impactful alternative to private property and would allow for a faster construction period.
- **ALT 2 will become Alternative 1 in the concept report** along with the No-Build alternative.

I-85 at Ridgeway Church Road

- I-85 has existing two 12-ft lanes in each NB and SB direction with 10-ft paved outside shoulders and 4-ft paved inside shoulder, and is posted for 70 MPH. Ridgeway Church Road has two 12-ft lanes with no paved shoulder and is posted for 45 MPH.
- ALT 1 would overbuild the I-85 NB bridge to allow for staging traffic during construction. The SB bridge would be replaced in the current location. Both bridges would require 12-ft outside shoulders and 10-ft inside shoulders. Traffic from both directions would be staged on the overbuilt section of the NB bridge. This option would allow a future third NB lane to be placed on the proposed bridge.
- ALT 2 would construct a temporary bridge in the center median to stage two lanes of traffic. Each bridge would be replaced on its current location. Neither proposed bridge would accommodate a future third lane in each direction. **ALT 2 will become Alternative 1 in the concept report.**
- GDOT PM will confirm whether the future third lane in each direction is programmed within 10 years of construction completion of this project. With this future widening in mind, ALT 1 will be replaced with a single bridge accommodating both NB and SB directions that can also accommodate the staging and future third lane in each direction. **The single bridge accommodating the future lanes will become the Preferred Alternative**. Center median barrier will be doweled into the bridge during the future third lane widening project.
- Bridge piers have been requested by the local community to be placed farther away from the travel lane on Ridgeway Church Road. The piers will be located appropriately and guardrail will be provided for additional protection.

Action Items

1. GDOT PM to confirm programming of third lane widening in each direction of I-85
2. GDOT PM to schedule Concept Team Meeting for the middle to end of May 2018

3. The ROW Estimate checklist needs to accompany the ROW layouts
4. Request Utility Estimates

Prepared by: Chad Havens
Michael Baker International
March 16, 2018

Michael Baker
INTERNATIONAL

SR 136 OVER TOTO CREEK
PI# 0013990

April 25, 2018

MEETING NOTES

Location

U.S. Army Corp of Engineers
1050 Buford Dam Road, Buford, GA 30518

Attendees

Jeff Emmert	USACE	jeffrey.g.emmert@usace.army.mil
Zac Lambert	USACE	zachary.t.lambert@usace.army.mil
Darrell Richardson	GDOT	drichardson@dot.ga.gov
Mary Best	MBI	mdbest@mbakerintl.com
Chad Havens	MBI	chad.havens@mbakerintl.com
Paul Condit (phone)	MBI	pfcondit@mbakerintl.com
Mark Grindstaff (phone)	Edwards-Pitman	mgrindstaff@edwards-pitman.com
David Smith (phone)	Ecological Solutions	davidsmith@ecologicalsolutions.net

The purpose of the meeting was to discuss and receive feedback on the conceptual alternatives and specific USACE requirements for the project.

- Chad Havens introduced the project and the purpose of the meeting.
- There are two concept alternatives:
    - Preferred Concept - Replace the bridge in the existing location. This would require closing the existing bridge during construction.
    - Alternative #1 - Build the new bridge to the east of the existing bridge to keep SR 136 open during construction.
- The Preferred Alternative now is replacing the bridge in the existing location and providing a detour around the bridge. This would limit impact to Toto Creek Park and USACE property while keeping access and use of Toto Creek Park open.
- The other alternative that would build the new bridge to the east of the existing bridge to keep SR 136 open would have significant impacts to USACE and park property. Access to the park would be closed at Toto Creek Park Road temporarily during construction due to significantly raise intersection at SR 136/Toto Creek Park Road/Henry Grady Hwy.
- Toto Creek Park has campgrounds that have occasional large campers that is closed in the winter. There is a boat launch and day use area that is open year-round. The nearest park with boat access is 4.2 miles south at Nix Bridge Park.
- Donald Moss Road could provide another access point to Toto Creek Park if Toto Creek Park Road is closed at SR 136, however, this road is narrow and consists of gravel. This would be difficult for campers to navigate.

- If the access to Toto Creek Park Road is closed temporarily for construction along with the other significant impacts to USACE park property for Alternative #1, a full Section 4(f) would have to be completed which could delay the schedule.
- Special provisions could be written that would require construction or closure of park during certain months of the year.
- Alternative #1 would also require ROW impacts to 11 parcels which would require significant land clearing.
- USACE supports the alternative that has minimal impact to the existing land and lake.
- There are transmission or distribution power lines on the west side of the existing bridge. Building a new bridge to the west would require full relocation as well as close Henry Grady Hwy.
- Design decisions on projects is moving from the Local Office to the Land Use PDT (Project Delivery Team). GDOT will coordinate that communication with USACE.
- The ESP model would still be coordinated with the local Lake Lanier office.
- USACE provided a map that distinguishes between USACE property and Toto Creek Park land designation.
- USACE has documentation that shows the location of GDOT's easement across Toto Creek.

Action Items

1. GDOT to coordinate with USACE Land Use PDT during concept phase.
2. USACE to provide easement documentation.
3. USACE to provide CAD file with land use designation.

Prepared by: Chad Havens
Michael Baker International
May 2, 2018

Michael Baker
INTERNATIONAL

SR 136 OVER TOTO CREEK
PI# 0013990

CONCEPT TEAM MEETING
July 17, 2018

MEETING NOTES

Location

GDOT District 1 Office
1475 Jesse Jewell Pkwy NE, Suite 100
Gainesville, GA 30501

Attendees

Darrell Richardson	GDOT	drichardson@dot.ga.gov
Brandon Kirby	GDOT	bkirby@dot.ga.gov
Shane Giles	GDOT	shgiles@dot.ga.gov
Judy Prince	GDOT	jprince@dot.ga.gov
Doris Abernathy	GDOT	dabernathy@dot.ga.gov
Harold Mull	GDOT	hmull@dot.ga.gov
Jonathan Dills	GDOT	jdills@dot.ga.gov
Matthew Richard	GDOT	mrichard@dot.ga.gov
Pete Hughes	Sawnee EMC	pete.hughes@sawnee.com
Chris Hughes	Sawnee EMC	chris.hughes@sawnee.com
Chad Havens	MBI	chad.havens@mbakerintl.com
George Manning	MBI	george.manning@mbakerintl.com
Mary Best	MBI	mdbest@mbakerintl.com
Brad Gowen	Holt Consulting	bgowen@holtconsultingco.com

The purpose of the Concept Team Meeting was to discuss and receive feedback on the concept report and design alternatives.

- The Preferred Alternative is to close SR 136 and replace the bridge in the current location due to environmental, geometric and cost constraints. Local detour will be provided via Henry Grady Hwy.
- GDOT concurs with using Henry Grady Hwy as detour, but they need approval from Dawson County.
- Alternative 1 consists of constructing a new bridge to the east of the existing bridge. This alternative would more than double the cost of the Preferred Alternative due to the increase construction, ROW and utility costs, and will only slightly increase the substandard vertical design. SR 136 is posted 55 mph and Alternative 1, due to the excessive roadway construction, would be reduced to only a 45-mph speed design. It is outside the scope of a bridge replacement to bring the road to 55-mph speed design. GDOT prefers Alternative 1 because it increases the vertical speed design from existing 35 mph to 45 mph. MBI has since received survey and will verify the existing vertical speed design and update the concept report accordingly. The existing speed design may be higher than 35 mph.
- Constructing a new bridge to the west was considered, but the design is similar to Alternative 1 except that it would increase impacts significantly to utilities and closes Henry Grady Hwy due to the raising of the intersection with SR 136 almost 10’.

- Sawnee EMC prefers the Preferred Alternative because of the significant savings in cost and to avoid the permit application process with USACE if Alternative 1 is selected.
- The USACE Environmental Stewardship Model will have to be added as a requirement in the concept report.
- GDOT asked if the ARPA coordination with USACE needs to be started. Yes this coordination has been started.
- GDOT asked how Preferred Alternative meets 55 mph as shown in Concept Report. This is because the project will tie into existing before the vertical curves on both sides of the bridge. There is a high point on the bridge with 0.3% slopes in each direction allowing for vertical break without a curve for 55 mph. The gutter spread was verified to stay within the shoulder across the bridge. No drainage issues are anticipated.

Action Items

1. Verify the existing speed design of SR 136 based on survey.
2. GDOT to obtain approval from Dawson County to use Henry Grady Hwy as the local detour.

Prepared by: Chad Havens
Michael Baker International
July 20, 2018

MS4 Concept Report Summary

Attach the following checklist information to the Concept Report Template:

Is there a Project Level Exclusion that applies to this project: ☐ No ☒ Yes

If yes, please indicate which of the following exclusions apply:

☐ Roadways that are not owned or operated (maintained) by GDOT may not require post-construction BMPs. Coordinate with the appropriate local government or entity to determine stormwater management requirements.

☒ The project location is not within a designated MS4 area.

☐ Maintenance and safety improvement projects whereby the sites are not connected and disturbs less than one acre at each individual site. This includes projects such as repaving, shoulder building, fiber optic line installation, sign addition, and sound barrier installation.

☐ Projects that have their environmental documents approved or right-of-way plans submitted for approval on or before June 30th, 2012.

☐ Road projects that disturb less than 1 acre or for site development projects that add less than 5,000 ft^2 of impervious area.

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:3/7/2018

Parameters: Bridge Serial Number

Bridge Serial Number: 085-0019-0 **County: Dawson** **SUFF. RATING: 49.2**

Location & Geography

Structure ID:	085-0019-0
200 Bridge Information:	06
*6 Feature Intersected:	TOTO CREEK
*7A Route Number Carried:	SR00136
*7B Facility Carried:	SR 136
9 Location:	7.6 MI SE OF DAWSONVILLE
2 GDOT District:	4841100000 - D1 DISTRICT ONE GAINESVILLE
*91 Inspection Frequency:	24 Date: 11/01/2017
92A Fracture Critical Insp. Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	60 Date: 08/22/2016
92C Other Spc. Insp Freq:	0 Date: 02/01/1901
* 4 Place Code:	00000
*5A Inventory Route(O/U):	1
5B Route Type:	3 - State
5C Service Designation:	1- Mainline
5D Route Number:	00136
5E Directional Suffix:	0. Not applicable
*16 Latitude:	34 - 23.6556
*17 Longtitude:	83 - 59.3994
98A Border Bridge:	0 98B: GA% 00
99 ID Number:	000000000000000
*100 STRAHNET:	0- The Feature is not a STRAHNET route.
12 Base Highway Network:	Yes
13A LRS Inventory Route:	851013600
13B Sub Inventory Route:	0
101 Parallel Structure:	N. No parallel structure exists
*102 Direction of Traffic:	2- Two Way
*264 Road Inventory Mile Post:	26.04
*208 Inspection Area:	Area 01
*104 Highway System:	0- Inventory Route is not on the NHS
*26 Functional Classification:	7- Rural - Major Collector
*204A Federal Route Type:	S - Secondary.
*204B Federal Route Number:	01336
105 Federal Lands Highway:	0. Not applicable
*110 Truck Route:	0- The Feature is not part of the National Network for Trucks
217 Benchmark Elevation:	0000.00
* Location ID No:	085-00136D-025.95E

218 Datum:	0- Not Applicable
*19 Bypass Length:	4
*20 Toll:	3- On a Free Road or Non-Highway
*21 Maintenance Responsibility:	01-State Highway Agency.
*22 Owner:	01-State Highway Agency.
*31 Design Load:	5- HS 20
37 Historical Significance:	5- Not eligible for the National Register of Historic Places
205 Congressional District:	009
27 Year Constructed:	1956
106 Year Reconsrtucted:	0
33 Bridge Median:	0-None
34 Skew:	0
35 Structure Flared:	No
38 Navigation Control:	0- Navigation is not controlled by an Agency
213 Special Steel Design:	0- Not applicable or other
267A Type Paint Super Structure:	5- Waterborne System (Type VI or VII) Year : 1996
267B Type Paint Sub Structure:	5 - Waterborne System (Type VI or VII). Year : 1996
*42A Type of Service On:	1-Highway
*42B Type of Service Under:	5-Waterway
214A Movable Bridge:	0
214B Operator on Duty:	0
203 Type Bridge:	E - Steel pile. N. Steel-Concrete M. Steel O. Concrete
259 Pile Encasement:	1
*43A Structure Type Main material:	4-Steel (Continuous)
*43B Structure Type Main Type:	2-Stringer/Multi-Beam or Girder
45 Number of Main Spans:	6
44 Structure Type Approach:	A:0- Other B: 0- Other
46 Number of Approach Spans:	0
226 Bridge Curve:	A: Vertical: YesB: Horizontal: No
111 Pier Protection:	N - Navigation Control item coded 0, or Feature not a waterway
107 Deck Structure Type:	1 - C-I-P Portland Cement Concrete - Epoxy Coated Rebars
108A Wearing Surface Type:	1. Concrete
108B Membrane Type:	0. None
108C Deck Protection:	8. Unknown
265 Underwater Inspection Area:	1

Signs & Attachments

225 Expansion Joint Type:	05- Finger joint.
242 Deck Drains:	1- Open Scuppers.
243A Parapet Location:	0- None present.
243B Parapet Height:	0.00
243C Parapet Width:	0.00
238A Curb Height:	1.3
238B Curb Material:	1- Concrete.
239A Handrail Left:	5- Combination.
239B Handrail Right:	5- Combination.
*240 Median Barrier Rail:	0- None.
241A Bridge Median Height:	0
241B Bridge Median Width:	0
*230A Guardrail Location Direction Rear:	3- Both sides.
*230B Guardrail Location Direction Fwrd:	3- Both sides.
*230C Guardrail Location Opposing Rear:	0- None.
*230D Guardrail Location Opposing Fwrd:	0- None.
244 Approach Slab:	3- Forward and Rear.
224 Retaining Wall:	0- None.
233 Posted Speed Limit:	55
236 Warning Sign:	Yes
234 Delineator:	No
235 Hazard Boards:	Yes
237A Gas:	32- Side Right.
237B Water:	00- Not Applicable
237C Electric:	00- Not Applicable
237D Telephone:	31- Side Left.
237E Sewer:	00- Not Applicable
247A Lighting: Street:	No
247B Navigation:	No
247C Aerial:	No
*248 County Continuity No.:	00
36A Bridge Railings:	2- Inspected feature meets acceptable construction date standards.
36B Transition:	2- Inspected feature meets acceptable construction date standards.
36C Approach Guardrail:	2- Inspected feature meets acceptable construction date standards.
36D Approach Guardrail Ends:	2- Inspected feature meets acceptable construction date standards.

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:3/7/2018

Bridge Serial Number: 085-0019-0

County: Dawson

SUFF. RATING: 49.2

Programming Data

201 Project Number:	CORP OF ENGINEERS
202 Plans Available:	4- Plans in InfoImage.
249 Proposed Project Number:	000000000000000000000000
250A Reconstruction Approval Status:	No
250B Route Approval Status:	No
250C Approval Status Definition:	0
250D Approval Status Federal:	0
251Project Identification Number:	0013990
252 Contract Date:	02/01/1901
260 Seismic Number:	00027
75A Type Work Proposed:	34- Widening with deck rehabilitation or replacement
75B Work Done by:	1- Work to be done by contract
94 Bridge Improvement Cost:(X$1,000)	$1,063
95 Roadway Improvement Cost: (X$1,000)	$106
96 Total Improvement Cost: (X$1,000)	$1594
76 Improvement Length:	1591.0'
97 Year Improvement Cost Based On:	2013
114 Future AADT:	5535
115 Future AADT Year:	2032

Hydraulic Data

113 Scour Critical:	U. No Load Rating; no scour critical data entered.
216A Water Depth:	7.5
216B Bridge Height:	35
222 Slope Protection:	1
221A Spur Dike Rear:	
221B Spur Dike Fwd:	
219 Fender System:	0- None.
220 Dolphin:	
223A Culvert Cover:	000
223B Culvert Type:	0- Not Applicable
223C Number of Barrels:	0
223D Barrel Width:	0.0
223E Barrel Height:	0.0
223F Culvert Length:	0.0
223G Culvert Apron:	0
39 Navigation Vertical Clearance:	0'
40 Navigation Horizontal Clearance:	0
116 Navigation Vertical Clear Closed:	0

Measurements:

*29 AADT:	3690
*30 AADT Year:	2012
109 % Truck Traffic:	1
* 28A Lanes On:	2
*28B Lanes Under:	0
210A Tracks On:	00
210B Tracks Under:	0
* 48 Maximum Span Length:	52
* 49 Structure Length:	272
51 Bridge Roadway Width:	22.0'
52 Deck Width:	26.8'
* 47 Total Horizontal Clearance:	22.0'
50A Curb / Sidewalk Width Left:	1.3
50B Curb / Sidewalk Width Right:	1.3
32 Approach Rdwy. Width:	22.0'

***229 Approach Roadway**

Rear Shoulder Left: Width:	6	*Right Width*:5.0	Type: 8 - Grass (Dirt).
Fwd Shoulder: Left Width:	4	*Right Width:*4.5	Type: 8 - Grass (Dirt).
Rear Pavement: Width:	22.3	*Type:*2- Asphalt.	
Forward Pavement: Width:	22.6	*Type:*2- Asphalt.	
Intersection Rear:	0	*Forward*:1	

53 Minimum Vertical Clearance Over Rd:	99' 99"
54A Under Reference Feature:	N- Feature not a highway or railroad.
54B Minimum Clearance Under:	0' 0"

***228 Minimum Vertical Clearance**

228A Actual Odometer Direction:	99'99"
228B Actual Opposing Direction:	99'99"
228C Posted Odometer Direction:	00'00"
228D Posted Opposing Direction:	00'00"
55A Lateral Underclearance Reference:	N- Feature not a highway or railroad.
55B Lateral Underclearance on Right:	0.0
56 Lateral Underclearance on Left:	0.0
10A Direction of Travel for Max Min:	0
10B Max Min Vertical Clearance:	99'99"
245A Deck Thickness Main:	6.5
245B Deck Thickness Approach:	0.0
246 Overlay Thickness:	0

Ratings and Posting

65 Inventory Rating Method:	1-Load Factor (LF)
63 Operating Rating Method:	1-Load Factor (LF)
66A Inventory Type:	2 - HS loading.
66B Inventory Rating:	22
64A Operating Type:	2 - HS loading.
64B Operating Rating:	37

231Calculated Loads		**Posting Required**
231A H-Modified:	21	No
231B Type3/Tandem:	22	No
231C Timber:	27	No
231D HS-Modified:	23	No
231E Type 3S2:	33	No
231F Piggyback:	38	No

261 H Inventory Rating:	20
262 H Operating Rating:	33
67 Structural Evaluation:	5
58 Deck Condition:	5 - Fair Condition
59 Superstructure Condition:	5 - Fair Condition
* 227 Collision Damage:	
60A Substructure Condition:	5 - Fair Condition
60B Scour Condition:	8 - Very Good Condition
60C Underwater Condition:	7 - Good Condition
71 Waterway Adequacy:	9-Superior to present desirable criteria.
61 Channel Protection Cond.:	8-Equal to present desirable criteria.
68 Deck Geometry:	2
69 UnderClr. Horz/Vert:	N
72 Approach Alignment:	6-Minor reduction of vehicle operating speed required.
62 Culvert:	N - Not Applicable
70 Bridge Posting Required:	5. Equal to or above legal loads
41 Struct Open, Posted, CL:	A. Open, no restriction
* 103 Temporary Structure:	No

232 Posted Loads

232A H-Modified:	00
232B Type3/Tandem:	00
232C Timber:	00
232D HS-Modified:	00
232E Type 3s2:	00
232F Piggyback:	00
253 Notification Date:	02/01/1901
258 Federal Notify Date:	02/01/1901

Phillips, Kim

From: David McKee <DMcKee@dawsoncounty.org>
Sent: Monday, August 20, 2018 8:27 AM
To: Richardson, Darrell
Subject: RE: 0013990 Dawson County SR 136 @ Toto Creek

I do not see a problem. I will look at the Board Calendar and let you know what when it is scheduled to go before them.

Do you have a deadline?

Thanks

David McKee

Dawson County
Director of Public Works
SPLOST Administrator
25 Justice Way, Suite 2322
Dawsonville, GA 30534
O-706-344-3500 Ext 42227
C-770-401-1122
www.dawsoncounty.org

From: Richardson, Darrell [mailto:DRichardson@dot.ga.gov]
Sent: Friday, August 17, 2018 10:47 AM
To: David McKee
Subject: 0013990 Dawson County SR 136 @ Toto Creek

David,

I am managing another bridge replacement project in your County that we are again looking at a local road as a detour route.

The bridge is SR 136 at Toto Creek. Our proposal is to close the bridge and replace it in the same location.

The detour to the south is pretty straight forward; I.E back to GA 400.

The detour from/to the north is where the issue is. Using State Routes we would have to use SR 60 to Murrayville and back around to SR 136 which would be at least a 20+ mile detour.

What we would like to do is utilize Henry Grady Hwy which intersects just north of the bridge that we are replacing and intersects GA 400 just north of SR 136. Using this as a detour would make very little difference in the distance than the existing SR 136 distance (less than 2 miles).

- NameDavid McKee
- Date9-6-2017
- TitlePublic Works Director
- CountyDawson
- PI or Structure Number (from letter)0013990

Q1
Please quantify the number of impacts anticipated by an off-site detour.
Respondent skipped this question
Q2
Please rate the impact on service if the bridge were closed for up to a year?
- Moderate Concerns

Q3
If concerns were identified, please specify what they are below, be as specific as possible (Conditions of detour route, location of students, new development expected, weight restrictions, etc.)
Emergency Services assistance from Hall County
Q4
Are there any future time periods or events that you know of where bridge closure would be of particular concern? Please note the event and any details you are familiar with.
None
Q5
Is there anyone you feel we should contact specifically regarding this project? Please note their name, phone number, and reason we should contact them?
Respondent skipped this question
Q6
Are there any additional comments you have regarding the project? Are the road names referenced the names the locals would use?
AKA Price Road

PI 0013990, Dawson County
Georgia Department of Transportation
Bridge Replacement Project
Detour Impact Form for EMS

Using the attached project map, please respond to the questions below. Please provide as much information as you feel is necessary. Please respond to all questions – use "N/A" or "Non-known" if no relevant information to question is available. If additional information or mapping for this project is needed, please contact us.

1. Please rate the impact to Emergency Response services if the bridge were closed for up to a year.

☐ No Impact ☐ Low Impact ☐ Moderate Impact ☑ High Impact

2. If there are concerns please specify. Be as specific as possible. (examples: condition of detour routes, located in a high call volume area, closure could affect response to schools, weight restrictions, expected new development in the area, coordination with partner agency required to facilitate service)

If this project is a total closure and Henry Grady Highway is also closed as part of this project, it would have tremendous impact on service delay to public safety to this area. This is a highly populated area in a main thoroughfare to Hall County.

3. Are there any future time periods or events that you know of where bridge closure would be of particular concern? Please note the event and any details you are familiar with.

None noted

4. Is there anyone you feel we should contact specifically regarding this project? Please note their name, contact information, and reason we should contact them?

On your map you have the Road to the left of the project named "Auraria Rd". This is GA 136 also referred to as "Price Road". Auraria Road is actually old SR 9E that runs from 136E to SR 9 inside Lumpkin County

5. Are there any additional comments you have for this project? Are the road names referenced the names the locals would use?

Partial closure is highly preferred by this office for this project.

Form Completed by (Name): Lanier Swafford

(Title): Fire Chief / EMA Director

Date: 22 August 2017

Sorry for snail mail - unable to open the Survey Monkey link

- NameDawson County Schools Transportation Dept
- Date9/8/17
- TitleDirector of Transportation
- CountyDawson
- PI or Structure Number (from letter)0013990

Q1
How many School Buses crossings over this bridge are there per day?

- Number of Busses3
- Number of Trips6

Q2
Please rate the impact on service if the bridge were closed for up to a year?

- Moderate Concerns

Q3
If concerns were identified, please specify what they are below, be as specific as possible (Conditions of detour route, location of students, new development expected, weight restrictions, etc.)
Concerned about how we would be able to pickup and drop off students on other side of bridge

Q4
Are there any future time periods or events that you know of where bridge closure would be of particular concern? Please note the event and any details you are familiar with.
No

Q5
Is there anyone you feel we should contact specifically regarding this project? Please note their name, phone number, and reason we should contact them?
No

Q6
Are there any additional comments you have regarding the project? Are the road names referenced the names the locals would use?
Yes

I have attached a map for your use.

Let me know your thoughts and/or if you want to discuss further. If this is possible, I was hoping the same proposal could be made to the County Commission as you did for the SR 183 at Cochran Creek project.

Thanks for your help.

Darrell M. Richardson, P.E.
Bridge Program Management Team AECOM
Development Planning & Engineering
678-730-1448